

ABSTRACT

Adding a trace transit list (TTL) information element (IE) to the Modify Request and Modify Reject messages enables automatic tracing of an ACM failure at the source node. As the Modify Request message progresses down the active connection to the destination node, logical node and logical link identifiers are collected in the TTL IE. If the Modify Request fails at a particular node, the failure cause, the trace of logical nodes and logical links to the failed node, along with vendor specific diagnostic information, is added to the Modify Reject message. The TTL IE information progresses back to the source node in the Modify Reject message without being altered. Once the Modify Reject message reaches the source node, the network operator can extract the TTL IE information and determine the source node of the ACM failure.